SZMIGIEL, Czesław

Behaviuor of the total iodine content in healthy infants.
Pediat. Pol. 40 no.6:593-600 Je '65.

1. Z II Kliniki Chorob Dzieci AM w Krakowie (Kierownik:
prof. dr. med. B. Halikowski) i z Zakladu Patologii Ogolnej
i Doswiadczalnej AM w Krakowie (Kierownik: prof. dr. med.
B. Giedosz).

SZMIGIEL, Zbigniew

Incomplete antileukocyte antibodies in leukemia patients.
Pol. tyg. lek. 20 no.18:639-640 3 My '65.

1. Z III Kliniki Chorob Wewnetrznych AM w Krakowie (Kierownik:
prof. dr. J. Aleksandrowicz).

SZMIGIELSKI, Stanislaw

Physiology, pathology and metabolism of leukocytes. Postepy
hig. med. dosw. 19 no.3:333-351 My-Je '65.

1. Z Kliniki Hematologicznej Instytutu Hematologii w Warszawie
(Kierownik: prof. dr. W. Lawkowicz).

LITWIN, Joanna; SZMIGIELSKI, Stanislaw; ZUPANSKA, Barbara

Histochemical studies of the activity of nonspecific esterases in blood and bone marrow cells. Pol. arch. med. wewnet. 35 no.5: 647-652 '65.

1. Z Kliniki Hematologicznej Instytutu Hematologii w Warszawie i z Katedry Hematologii Studium Doskonalenia Lekarzy w Warszawie (Kierownik: prof. dr. med. W. Lawkowicz).

SZEMLA, Imre

Role of the Council of Mutual Economic Assistance in the factories
of Borsod County. Borsod Szemle 7 no.5:20-32 '63.

1. Tudomanyos Ismeretterjeszto Tarsulat Borsod megyei Titkara;
"Borsodi Szemle" szerkeszto bizottsagi tagja.

SZMOLA, Imre

For modernizing the dissemination of scientific knowledge.
Borsod szemle 7 no.3:1-4 '63.

1."Borsodi Szemle" szerkeszto bizottsagi tagja; Tudomanyos
Ismeretterjeszto Tarsular Borsod megyei titkara.

SZMOLA, Imre

Preparations for the general meeting. Borsod szemle 8 no.1:
83-84 '64.

1. Tudomanyos Ismeretterjeszto Tarsulat Borsod megyei titkara;
"Borsodi Szemle" szerkeszto bizottsagi tagja.

SZMOLA, Imre

Future perspectives of the Borsod County Society for Disseminating
Scientific Knowledge in the work of the general meeting. Borsod
szemle 8 no. 2:1-8 '64.

1. Secretary, Borsod County organization, Society for Dissemina-
tion of Scientific Knowledge.

SZMOLKA, L.

CA

Calcination of Hungarian dolomites. Lajos Szmolka. *Aluminium* 2, 293-6(1950). Calcining expts. were conducted with 17 Hungarian dolomites. In each expt. a 10-g. sample was calcined 1 hr. at 500-1000° in an elec. furnace. All the dolomite samples had similar ignition behavior. Full calcination was conducted at temps. not exceeding 1000°. When the degree of heating of dolomite was examd. by means of a thermoelement, the curve obtained showed a steady period at 750-780° where no increase of temp. was observed due to an endothermic process. During this period only $MgCO_3$ was decompd., and the period was not terminated until all the CO_2 of the $MgCO_3$ originally present in the dolomite was liberated.   István Finály

SZMOLKA, L.

Electrolysis of roasted zinc concentrates originating from Gyöngyösoroszi (Hungary) from electrolytes manufactured by leaching. Lajos Szmolka and Béla Czeglédi (Fémipari Kutató Intézet, Budapest, Hung.). Fémipari Kutató Intézet Közleményei No. 2, 178-83(1958).—Tests were conducted to establish the optimum operating conditions for the manuf. of Zn from the electrolyte obtained by leaching the roasted concentrates. Operation at approx. 7 amp./sq. dm. c.d. and Zn concn. of the electrolyte during the operation from an initial 130 to a final 60 g./l., corresponding to an acidity range of 100–200 g. H_2SO_4/l. were recommended to achieve lowest energy consumption.

L. G. Arvai

SZMONIEWSKI, Ryszard; SZMONIEWSKA, Stanislawa

The one-point method of determining the liquid limit. Kwartalnik geol 8 no.1:189-198 '64

1. Zaklad Geologii Inzynierskiej, Instytut Geologiczny, Warszawa.

SZMONIEWSKI, Ryszard; SZMONIEWSKA, Stanislawa

The one-point method of determining the liquid limit. Kwartalnik geol 8 no.1:189-198 '64

1. Zaklad Geologii Inzynierskiej, Instytut Geologiczny, Warszawa.

SZMORLINSKI, Z., dr inz.; KARWACKI, W., mgr inz.

Analog methods of determining the distribution of heat and the cooling medium in the design of turbogenerators. Przegl elektrotechn 40 no.5:222-223 My '64.

1. Department of Electric Machines, Technical University, Wroclaw.

SZMUK, A.; WEISS, M.

System of indices for agricultural and rural, electrification in Rumania. p. 321.
(ENERGETICA. Vol. 5, no. 6, June 1957, Rumania)

SO: Monthly List of East European Accessions (EEAL) LC. Vol 6, No. 12, Dec. 1957
Uncl.

C A

Determination of the chorionic gonadotropic hormone by use of frogs and its availability as a rapid pregnancy test. Imre Bach, Imre Szmuk, Borbála Klinger, and László Róbert. *Orvosi Hetilap* 90, 204-6(1949).—*Rana esculenta* male frogs of body wt. above 50 g. were inoculated subcutaneously by 10% of their body wt. with the urine to be tested. Two hrs. after inoculation urine from the cloaca of the frog was observed under the microscope. In the case of increased hormone sperms could be seen. These sperms disappeared from the urine after 3-4 days and the same frogs were available for further tests. Out of 610 tests 4 were erroneous, others correct (the pos. results all being correct).
                                                            István Finály

S Z M U K   I

PARADY, Z., SZMUK, I,

New serological test, with special reference to early diagnosis of
endocarditis lenta and to the therapeutic evaluation of the effect
of administered antibiotics. Orv. hetil. 91:27, 2 July 50.
p. 844-5

1. Laboratory (Head Physician—Dr. Imre Szmuk), Peterfy Sandor
Street Hospital of National Institute for Social Insurance.

CLML 19, 5, Nov., 1950

SZMUK, I.   1951

"Laboratory use of A Series of Protein Solutions for the Euglobulin Reaction."

Kiserl. Orvostud. Budapest. 1951 3/4(294-296)
Abst: Exc. Med. 11, Vol. 5, No. 10, p. 1182

VIIRASZTO, J.; SZMUK, I.; TAKACS, S.; WINKLER, P.

Treatment of carriers of Streptococcus hemolyticus with penicillin-glycerine spray. Orv. hetil. 92 no.11:353 18 Mar 1951. (CLML 24:2)

1. Doctor. 2. Second Surgical Clinic (Director -- Prof. Dr. Dezno Klimko) and First Institute of Anatomy (Director -- Prof. Dr. Ferenc Kiss), Lorand Eotvos University, Budapest.

BACH, I.; SZMUK, I.; GYULAI, E.; VIRANYI, A.

Investigation of the pituitary and adrenal gland system
in experimental fever; new method for eosinophil cell
count. Orv. hetil., Budap. 93 no.35:1117-1125 2 Sep 1951.
(CIML 21:1)

1. Internal Department (Head Physician — Prof. Dr. Imre
Bach) and Laboratory (Head Physician — Dr. Imre Szmuk),
Peterfy Sandor-utcai Metropolitan Hospital, Budapest.

SZMUK, I.; ERZSEBET, S.

Reliable thrombokinase production and technic of use. Orv. hetil. 94
no.24:670-671 14 June 1953.   (CIML 25:1)

1. Doctors. 2. Laboratory (Head Physician -- Dr. Imre Szmuk), Peterfy
Sandor-u., Metropolitan Hospital Polyclinic (Director-Head Physician --
Dr. Jozsef Lendvai).

SZMUK, I.

Further studies on pathology of the blood proteins. Orv. hetil. 94
no.47:1304-1305 22 Nov 1953.   (CLML 25:5)

1. Doctor. 2. Laboratory (Head Physician -- Dr. Imre Szmuk), Peterfy
Sandor-utca Hospital-Polyclinic (Director - Head Physician -- Dr. Jozsef
Lendvai).

SZMUK, IMRE

FEKETE, Balazs; POPPER, Zsuzsanna; SZMUK, Imre

Complexon III in the determination of metal ions. I. Determination of blood calcium ions. Kiserletes orvostud. 6 no.4:374-377 July 54.

1. A For. Peterfy Sandor-utcai Korhazrendelo Laboratoriuma
     (CALCIUM, in blood
          determ., ethylenediaminotetraacetic acid)
     (ACETIC ACID, deriv.
          ethylenediaminotetraacetic acid, determ. of blood calcium)
     (BLOOD
          calcium, determ., ethylenediaminotetraacetic acid)

GAL, Miklos,; SAJGO, Erzsebet,; SZMUK, Imre.

Plasma labile factor in diseases of the liver and of the biliary tract. Kiserletes orvostud. 7 no.2:192-196 Mar 55.

1. Povarosi tanacs Peterffy S.U. Korhazrendelo A. Belosztalya es Laboratoriuma.
        (BLOOD COAGULATION,
           factor V, in biliary & liver dis.)
        (BILIARY TRACT, diseases,
           factor V in)

FEKETE, Balazs, dr.,; KOMOR, Karoly, dr.,; SZMUK, Imre, dr.

Determination of penicillin in the blood, administration of
penicillin per os, and prolonged action of penicillin. Orv. hetil.
96 no.10:264-267 6 Mar 55

1. A Fovarosi Peterfi Sandor utcai Korhaz-rendelo (igazgato:
Lendvai Jozsef dr.) Laboratoriumanak (foorvos: Smuk Imre dr.)
es B.Belcsztalyanak (foorvos Bach Imre dr. az orvostudomanyok
kandidatusa) kozlemenye.
        (PENICILLIN, administration,
             oral, prolonged action penicillin)

FROMMER, Edgar, dr.,; SZMUK, Imre, dr.

Nicotine-azobenzene-azoprotein. Orv. hetil. 96 no.13:347
27 Mar 55.

1. A Peterfy S.u.-i korhaz (igazgato: Lendvai Jozsef dr.)
prosecturajanak (osztalyvezeto: Braun Sandor dr.) es laboratoriumanak
(osztalyvezeto Szmuk Imre dr.) kozlemenye.
        (NICOTINE, derivatives,
            nicotine-azobenzene-azoprotein)
        (PROTEINS,
            nicotine-azobenzene-azoprotein)
        (BENZENE, derivatives,
            nicotine-azobenzene-azoprotein)

SZMUK, Imre, dr.; BACH, Imre, dr.; DANZIGER, Laszlo, dr.; FEKETE, Balazs, dr.;
FLEISCHMANN, Laszlo, dr.; JAKO, Geza, dr.; MISSURA, Tibor, dr.;
POPPER, Sauzsanna, dr.; SZABADOS, Daisy, dr.

Use of radioiodine in localization of inflamed regions (foci,
abscesses). Orv. hetil. 97 no.34:949-951 19 Aug 56.

1. A Fovarosi Peterfy Sandor u. Korhazrendelo (igazgato:
Lendvai, Jozsef, dr.) kozlemenye.
    (BRAIN, abscess
        exper., localization with radioiodine in dogs (Hun))
    (IODINE, radioactive
        in localization of exper. brain abscesses in dogs (Hun))

SZMUNESS, Wolf (Lublin)

Results of our observations on the etiology and epidemiology of
chronic dysentery. Przegl.epidem. 14 no.3:289-294 '60.
            (DYSENTERY BACILLARY)

SZMUNESS, Wolf

Certain epidemiological characteristics of Sonne's type of dysentery.
Przegl.epidem. 14 no.3:295-299 '60.
            (DYSENTERY BACILLARY epidemiol)

SZMUNESS, Wolf

Frequency and certain characteristics of inoculation hepatitis.
Polski tygod.lek. 15 no.42:1608-1613 17 O '60.

1. Z Instytutu Medycyny Pracy i Higieny Wsi w Lublinie; dyrektor:
prof.dr J.Parnas.
        (JAUNDICE HOMOLOGOUS SERUM)

PARNAS, Jozef; SZMUNESS, Wolf; przy wspolpracy CYMERMAN, Haliny

Results of further studies on ornithosis. Przegl. epidem. 15 no.4: 355-363 '61.

1. Z Zakladu Antropozoonoz Instytutu Medycyny Pracy i Higieny Wsi w Lublinie.

(ORNITHOSIS epidemiol)

SZMUNESS, Wolf

On epidemic hepatitis morbidity among physicians and their families.
Przegl. epidem. 15 no.4:365-372 '61.

1. Z Instytutu Medycyny Pracy i Higieny Wsi i z Wojewodzkiej Stacji
San-Epid. w Lublinie i Ponzaniu.

(HEPATITIS INFECTIOUS epidemiol)
(PHYSICIANS dis)

PARNAS, Jozef; SZMUNESS, Wolf; UJDA, Jozef

A case of possible ornithosis. Polski tygod. lek. 16 no.17:641-643
24 Ap '61.

1. Z Zakladu Antropozoonoz i Dzialu Klinicznego Instytutu Medycyny
Pracy i Higieny Wsi w Lublinie; kierownik: prof. dr Jozef Parnas.

(ORNITHOSIS diag)

GAWRONOWA, Helena; HOROCH, Czeslaw; KOZLOWSKA, Teresa; SIKORSKA, Jadwiga;
    SZMUNESS, Wolf

An epidemic of water-borne dysentery and diarrhea. Przegl. epidem.
16 no.4:473-478 '62.

1. Z Wojewodzkiej Stacji Sanitarno-Epidemiologicznej w Lublinie Dyrektor:
dr Cz. Horoch.
            (DYSENTERY BACILLARY)   (DIARRHEA)
                    (WATER MICROBIOLOGY)

SZMUNESS, Wolf

Analysis of infectious hepatitis in rural areas. Przegl. epidem. 16
no.1:1-11 '62.

1. Z Woj. Stacji San.-Epid. w Lublinie Dyrektor: dr. C. Horoch i z
Instytutu Medycyny Pracy i Higieny Wsi Dyrektor: prof. dr J. Parnas.
                (HEPATITIS INFECTIOUS epidemiol)

POLAND

SZMUNESS, Wolf, Wojewodztwo Station of Sanitation and Epi-
demiology (Wojewodzka Stacja Sanitarno-Epidemiologiczna) in
Lublin (Director: Dr. Cz. HOROCH) and the Institute of Oc-
cupational Medicine and Rural Hygiene (Instytut Medycyny
Pracy i Higieny Wsi) (Director: Prof. Dr. J. PARNAS)

"Studies on Intra-Family Infections in Epidemic Hepatitis."

Warsaw, Przeglad Epidemiologiczny, Vol 17, No 3, 63, pp
195-206

Abstract: [Author's English summary modified] Analysis of
over 5,000 cases revealed that family infections accounted
for 1.68% of a total of 5.01% of secondary cases, with rate
of cohabitants 4-19 times higher than expected.   Intra-
familial cases occurred mostly during epidemics, in first
months, in rural population, in children, among children
or children and their mothers, and depended on hygienic con-
ditions and crowding. They were not subject to seasonal
fluctuation, and hospitalization of first patient in family
had no influence on intrafamilial incidence. 56 refer-
ences: 16 Soviet, and about 15 Eastern and 25 Western.

1/1

SZMUNESS, Wolf

> An epidemic of inoculation hepatitis among children of a
> rural school and kindergarten. Pol. tyg. lek. 18 no.24:549-
> 553 10 Je '63.
>
> 1. Z Wojewodzkiej Stacji Sanitarno-Epidemiologicznej w Lublinie;
> dyrektor: dr Cz. Horoch.
>   (HEPATITIS, HOMOLOGOUS SERUM) (EPIDEMIOLOGY)
>   (TYPHOID-PARATYPHOID VACCINE) (DIPHTHERIA TOXOID)

POLAND

SZMUNESS, Wolf, Wojewodztwo Sanitation and Epidemiology Station (Wojewodzka Stacja Sanitarno-Epidemiologiczna) in Lublin (Director: Dr. Cz. HOROCH)

"The Epidemic of Serum Hepatitis Among Children of the School and Kindergarten of the 'Cielesnica" State Farm."

Warsaw, Polski Tygodnik Lekarski, Vol 18, No 24, 10 Jun 63, pp 849-853

Abstract: [Author's English summary modified] Author analyzes an epidemic of serum hepatitis in 60 children vaccinated on the same day for typhoid fever and diphtheria with unsterilized syringes and needles. In the school, 25.3 of the vaccinated children were affected, and in the kindergarten 71.4. There were 25 cases with typical, 10 with abortive, and 25 with suspected abortive forms of the diseases. Incubation period was 42-86 days, and no relation was found between it and the age of the child or form of the disease. The clinical form of the disease was mild, and the prodromal period was absent in only two cases. There are 19 references, of which eight (8) are Polish, six (6) English, and five (5) German.

1/1

SZMUNESS, Wolf

Attempted general characterization of the course of infectious hepatitis epidemics in rural areas. Przegl. epidem. 18 no.1: 59-66 '64.

1. Z Woj. Stacji Sanitarno-Epidemiologicznej w Lublinie (Dyrektor: dr. C. Horoch).

SZMUNESS, Wolf

Observations on the epidemillogic effectiveness of quarantining
children from the environment of epidemic hepatitis. Przegl.
epidem. 18 no.4:453-458 '64.

1. Z Wojewodzkiej Stacji Sanitarno-Epidemiologicznej w Lublinie
(Dyrektor: dr. Cz. Horoch).

SZMUNESS, Wolf

Effectiveness of gamma globulin in controlling viral hepatitis.
Pol. tyg. lek. 19 no.45:1734-1736 N 9:64

1. Z Woj. Stacji Sanitarno-Epidemiologicznej w Lublinie.

L 01789-67   T JK

ACC NR: AP6035151   (A)   SOURCE CODE: PO/0081/65/019/002/0198/0199

SZMUNESS, Wolf; Regional Sanitation and Epidemiology Station (Wojewodzka
Stacja Sanitarno-Epidemiologiczna), Lublin.

"Observations on the Epidemiologic Usefulness of   Mandatory Hospitalization
of Patients with Infectious Hepatitis."

Warsaw, Przeglad Epidemiologiczny, Vol 19, No 2, 1965; p 198-199.

Abstract: Analysis of 5,000 cases of infectious hepatitis with special
attention to advantages and disadvantages of   mandatory hospitalization.
Author found little to indicate that   mandatory hospitalization was
useful in checking the spread of disease; specialized study of 1,000 cases
shows that 90% of these were hospitalized only on the fifth day of the
disease, and no less than 60% as late as the tenth day, i.e. when contagiousness
is already minimal. Presented at the 3rd Scientific Assembly of Polish Epi-
demiologists and Infectologists, Krakow, 5-6 Oct 64. [JPRS]

TOPIC TAGS: epidemiology, hepatitis

SUB CODE: 06 / SUBM DATE: none

Card 1/1

POLAND

SZMUNESS, Wolf; SIKORSKA, Jadwiga; SZYMANEK, Elzbieta; MIKOSZ, Aleksander, and CECHOWICZ, Lucja; Regional Sanitation-Epidemiology Center (Wojewodzka Stacja Sanitarno-Epidemiologiczna,) Head (Dyrektor) C. HOROCH, MD, Lublin.

"Possibilities of Dissemination of Salmonella enteritidis Infections by the Respiratory Route."

Abstract [English summary modified]: Strains of antibiotic-resistant Salmonella enteritidis were isolated from the throat and nose swabbings of 37 out of a total of 131 children infected with the microbe in five hospital foci. Most were quite young, below 1 year of age. Carrier state was usually permanent. Three tables, 1 Soviet, 16 Western references.

1/1

SZRUNIELSKI, H.

In the heart of the black continent. p. 356.

PRZEGLAD GEODEZYJNYN. (Stowarzyszenie Naukowe-Techniczne Geodetow Polskich)
Warszawa. Vol. 15, no. 8/9, Aug/Sept. 1959.

Monthly List of East European Accession (EEAI) IC, Vol. 9, no. 2, Feb. 1960.

Uncl.

OSTROWSKI, Ludwik; SZMURŁO, Jarosław

Cleidocranial dysostosis. Czas. stomat. 18 no.8/9:955-959
Ag-S '65.

1. Z II Kliniki Chirurgicznej AM w Białymstoku (Kierownik:
prof. dr. med. T. Jankowski) i z Zakładu Radiologii AM w
Białymstoku (Kierownik: doc. dr. med. S. Boczoń).

BENDARZEWSKI, Stanislaw; REUTT, Henryk; SZMURLO, Jaroslaw

Protein metabolism and callus formation in old, adult and young rats. Chir. narzad. ruchu ortop. pol. 29 no.1:5 -11 '64.

1. Z Zakladu Fizjologii AM w Bialymstoku (kierownik: doc.dr. med. R.Kordecki) i z Zakladu Rentgenologii AM w Bialymstoku (kierownik: doc.dr.med. S.Boczon).

POLAND/Chemical Technology - Food Industry.   H-28

Abs Jour   : Ref Zhur - Khimiya, No 24, 1958, 83353

Author   : Debski, S., Szmyd, A.
Inst   : -
Title   : The Change in the Quality of Apple Juice in the Course of
               Compressing.

Orig Pub   : Przem. spozywczy, 1958, 12, No 4, 147-148.

Abstract   : The quality of juice was investigated in the process of
               compressing at a press load of 1200 kilograms, a final
               pressure of 10-15 kilograms per cm^2., and process duration
               from 30-40 minutes, and it was found that in the extract
               content at the end of compressing was 0.96% less on the
               average, as compared to its original content of 7.8 to
               12%, and a decrease in acidity by 0.026% as compared to
               the initial 0.77-0.91% of the juice. The observed pheno-
               menon is explained by the presence in apples of plant
               cells of various ripeness and it is therefore assumed

Card 1/2

SZMYD, T.

Transistor generator for measuring pruposes. Biuletyn. p. 12.
(PRZEGLAD GORNICZY. Vol. 12, no. 11, Nov. 1956, Katowice, Poland)

SO: Monthly List of East European Accessions (EEAL) LC.   Vol. 6, No. 12, Dec. 1957.
      Uncl.

SZMYD, T.

Some problems concerning electronic measurements in mining engineering. p.467
(PRZEGLAD GORNICZY, Vol. 12, No. 12, Dec. 1956, Stalinogrod, Poland)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 9, Sept. 1957, Uncl.

S/081/62/000/024/056/073
B166/B186

AUTHORS: Przesmycki, Jan, Szmyd, Tadeusz, Kucharczyk, Wiktor,
            Przesmycka, Irena

TITLE: Electronic device for measuring electrophoretic fractions

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1962, 510, abstract
            24I290 (Polish Patent 45166, Nov. 8, 1961)

TEXT: The patent is for a device which enables simple, quick and practic-
ally error-free measurements to be made for quantitative evaluation of
electrophoresis patterns. The instrument is designed to convert individual
fractions into corresponding values of an electric current, to display the
separated fractions on the screen of an oscilloscope, to integrate the re-
sults and to present them in a percentage expression. The measuring pro-
cess takes 3 min, not counting the time taken by the electron tubes to
warm up. [Abstracter's note: Complete translation.]

Card 1/1

SZMYD, Tadeusz, mgr inz.

Possibilities of applying longwall radiotelephones. Wiadom gorn
13 no.10:355-358 O '62.

SZMYD, Tadeusz, mgr inz.

      Transistors and Hall generators as basic semiconductive
elements in mining automation. Wiadom gorn 14 no.1:27-30
Ja '63.

SZMYDT, S.

A generalized problem of Neumann. Annales Pol math 15
no.3:309-325 '64.

1. Institute of Mathematics, Polish Academy of Sciences,
Krakow.

SZMYDT, Z.

"Structure of an Aggregate Produce by Integrals Leading to the Singular Point of a
System of Differential Equations." P. 223,
(GEODEZJA I KARTOGRAFIA, Vol. 1, No. 6, 1953, Warszawa, Poland.)
(Polska Akademia Nauk.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3,
No. 12, Dec. 1954, Uncl.

SZMYDT, Z

Szmydt, Z. Sur les systèmes d'équations différentielles dont toutes les solutions sont bornées. Ann. Polon. Math. 2 (1955), 234–236 (1956).

A remark concerning the differential system (1) $x' = A(t)x + f(t, x)$, where $A(t)$ is a $n \times n$ matrix with continuous coefficients and $f(t, x)$ is a continuous vector function of t and x, $0 \leq t < \infty$. Let $Y(t)$, $t \geq 0$, denote a fundamental solution of the linear system $y' = A(t)y$. If (a) $\|Y(t)\| \leq M$, $0 \leq t < \infty$; (b) $\|f(t, x)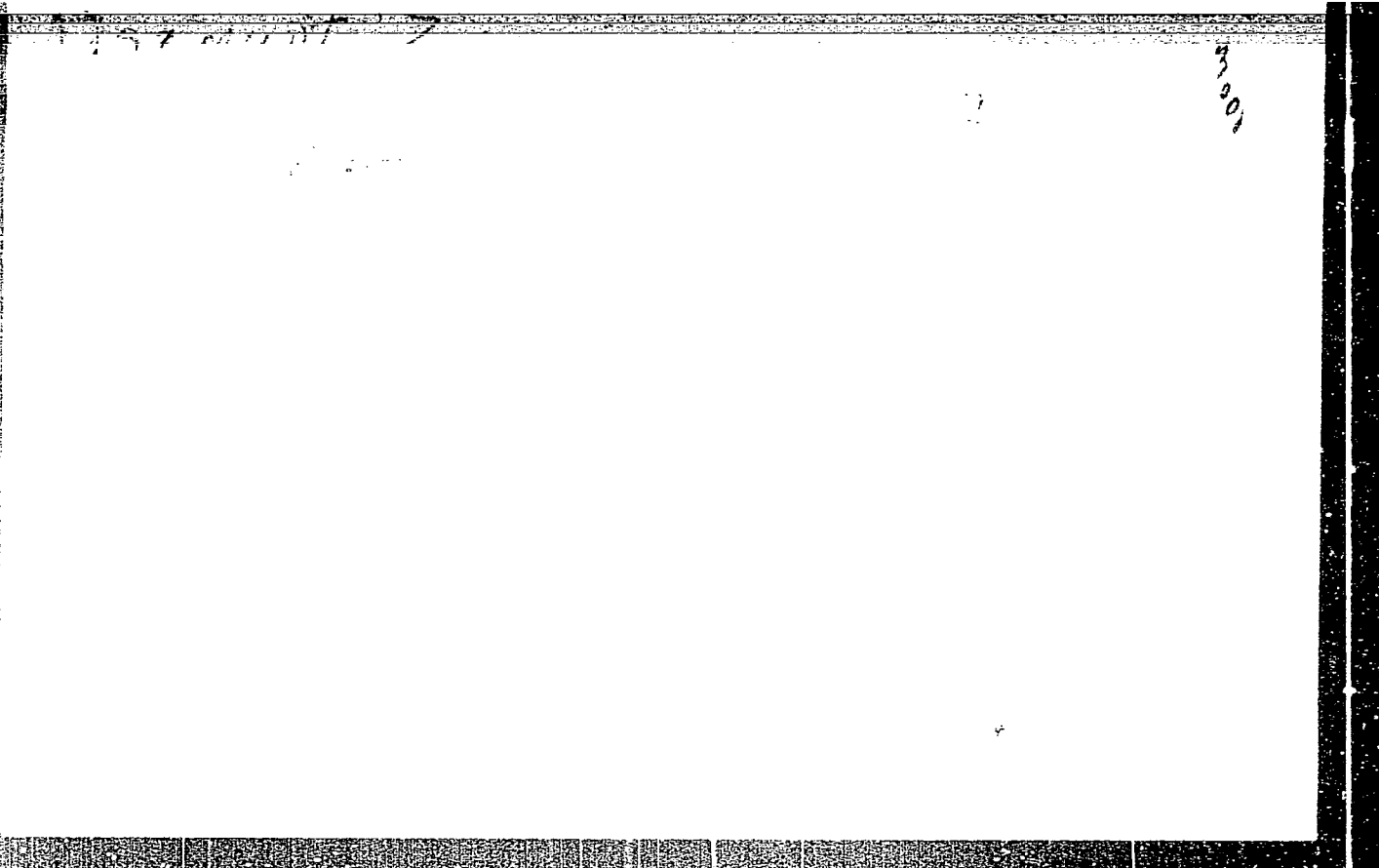\| \leq g(t)\|x\|$, $\int_0^{+\infty} g(t)dt < +\infty$; (c) $\|Y(t)Y^{-1}(\tau)\| \leq N$ for all $0 \leq \tau \leq t$, then all solutions of (1) are bounded. II. If (a), (b) hold, and (d) $f(t, Y(t)z) = Y(t)f(t, z)$ for all $t \geq 0$ and vectors z, then all solutions of (1) are bounded. I is an immediate consequence of the reduction of (1) to an integral equation. II follows by a remark of H. Weyl [Amer. J. Math. 68 (1946), 7–12; MR 7, 382]. The norm above, $\| \|$, is the usual square root of the integral-squares of the elements.   *L. Cesari.*

1 - F/W

theory (see the ....
systems are considered

$dX/dt = F(t, X, Y)$, $dY/dt = G(t, X, Y)$.

Szmydt, Z.

Szmydt, Z. On the degree of regularity of surfaces formed by the asymptotic integrals of differential equations. Ann. Polon. Math. 2 (1955), 294–313 (1956).

The author studies the autonomous differential system (1) $dy/dt = f(y)$, $y = (y_1, \cdots, y_n)$, $f = (f_1, \cdots, f_n)$, for which the origin is the singular point, i.e. $f(0) = 0$. Also, it is assumed that the characteristic roots of the matrix $C = \|c_{ij}\|$, c_{ij} being the partial derivative of f_i with respect to y^j at the point $y = 0$, have the real parts different from zero and two of them have real roots of opposite signs. Let S denote the subset of E_n made up of all trajectories $y = y(t)$ of system (1) tending to the singular point as $t \to +\infty$. I. G. Petrovskiĭ proved [Mat. Sb. 41 (1934), 107–156] that S is a continuous manifold under general conditions of f. M. Martin [Bull. Amer. Math. Soc. 46 (1940), 475–481; MR 2, 50] proved that S is an analytic manifold if f is analytic. In the present paper the author proves that S is a manifold of class C^p if f is of class C^p, $p \geq 1$.   *L. Cesari* (Lafayette, Ind.).

1 – F/W

SZMYDT Z.

Szmydt, Z. Sur un nouveau type de problèmes pour un système d'équations différentielles hyperboliques du second ordre à deux variables indépendantes. Bull. Acad. Polon. Sc. C. III 4 (1956), 67-72.

The author considers for a vector function $U(x, y)$ in [...] hyperbolic [...] F is [...]

[...] the [...] and [...] they are not necessarily distinct. Problem I requires [...] fonct. U, U_y) on Γ, $U_y = H(y, U)$, [...] Λ and [...] H_0 at a given [...] Problem II requires the same on Γ and [...] H_y on Λ. The constant H_0 and the continuous functions G, H, h are given in the above problems. It is [...] using Schauder's fixpoint theorem. $1/z$

1·F\W

Smyth, 2.

2

The detailed assumptions needed for the proofs are
formulated for problem II and a special case of I. These 1-F\W

and G, H

that G and H

B (Ann Detroit, Mich).

... can be proved. The author outlines a proof depending on Schauder's fixed-point theorem.

Hartman (Baltimore, Md.)

Szmydt, Z. Sur l'existence de solutions de certains nouveaux problèmes pour un système d'équations différentielles hyperboliques du second ordre à deux variables indépendantes. Ann. Polon. Math. 4 (1957), 40–60.

Let R be the rectangle $|x| \leq a$, $|y| \leq b$; and let $y = \gamma(x)$ for $|x| \leq a$, $x = \lambda(y)$ for $|y| \leq b$ be two continuous arcs in R. For a vector $u = (u^1, \cdots, u^n)$, let $|u| = \max(|u^1|, \cdots, |u^n|)$. Let $F(x, y, u, p, q)$, $G(x, u, q)$, $H(y, u, p)$ be continuous vector functions defined for (x, y) in R and $|u|$, $|p|$, $|q| \leq r$. Let u_0 be a constant vector and $|u_0|$, $|G|$, $|H| \leq c < r$. The author is concerned with the question of the existence of functions $u(x, y)$ of class C^1 with continuous mixed derivatives u_{xy} satisfying $u_{xy} = F(x, y, u, u_x, u_y)$, $u(x_0, y_0) = u_0$, $u_x(x, y) = G(x, u(x, y), u_y(x, y))$ for $y = \gamma(x)$ and either

(I) $u_y(x, y) = H(y, u(x, y), u_x(x, y))$ for $x = \lambda(y)$, or

(II) $u(\lambda(y), y) = u_0 + \int_{y_0}^{y} H(t, u(\lambda(t), t), u_x(\lambda(t), t))dt$.

... G, H satisfy uniform Lipschitz conditions with respect to (p, q), q, p, respectively, with sufficiently small Lipschitz constants, then the problem (I) has a solution and if, in addition, $\lambda(y)$ is of class C^1, then problem (II)

Szmydt, Z.

has a solution on R. Several variants of this result are 2 given. For example, if in problem (I), G does not depend on q, or if $\gamma(x) =$const, the Lipschitz condition on F can be replaced by a condition of the form $|F(x, y, u, p, q) - F(x, y, u, p^*, q^*)| \leqq w_1(y, |p-p^*|, x) + w_2(x, |q-q^*|, y)$, where $w_i(s, v, t)$ are continuous, nondecreasing in v and the initial value problems $dv/ds = \pm w_i(s, v, t)$, $v(s_0) = 0$ for fixed t, s_0 have the unique solution $v \equiv 0$. [See also Ciliberto, Ricerche Mat. 4 (1955), 15–29; MR 17, 621.] The proofs depend on Schauder's fixed-point theorem.

P. Hartman (Baltimore, Md.)

Szmydt, Z. Sur le problème Goursat concernant les équations différentielles hyperboliques du second ordre. Bull. Acad. Polon. Sci. Cl. III. 5 (1957), 571–575; XLIX. (Russian summary)

Let $f(x, y, z, p, q)$ be continuous for $|x|, |y| \leq \alpha$ and arbitrary z, p, q and satisfy a uniform Lipschitz condition with respect to (z, p, q). Let $\gamma(t)$, $\delta(t)$, $\sigma(t)$, $\tau(t)$ be of class C^1 for $|t| \leq \alpha$; $\sigma(0) = \tau(0)$; $|\gamma(t)|$, $|\delta(t)| \leq \alpha$; $\gamma(0) = \delta(0) = 0$; and $(\max |\gamma'(t)|)(\max |\delta'(t)|) < 1$. The author gives a proof for the following: if $\beta > 0$ is sufficiently small, the problem $z_{xy} = f(x, y, z, z_x, z_y)$, $z(x, \gamma(x)) = \sigma(x)$, $z(\delta(y), y) = \tau(y)$ has a unique solution $z(x, y)$ for $|x|, |y| \leq \beta$, possessing continuous partial derivatives z_x, z_y, z_{xy}. As in the case of the Darboux problem, the existence (but not the uniqueness) statement remains valid if the Lipschitz condition with respect to z is omitted [cf. Hartman and Wintner, Amer. J. Math. 74 (1952), 834–864; MR 14, 475; Ciliberto, Ricerche Mat. 4 (1955), 15–29; MR 17, 621; Szmydt, Bull. Acad. Polon. Sci. Cl. III. 4 (1956), 579–584; MR 18, 741]. The proof depends on an application of the Schauder fixed-point theorem and can be generalized to the case where z and f are vectors.   P. Hartman.

On the Problem of Goursat on the Second Order Hyperbolic Differential Equation.

Szmydt, Z. Sur un problème concernant un système d'équations différentielles hyperboliques d'ordre arbitraire à deux variables indépendantes. Bull. Acad. Polon. Sci. Cl. III. 5 (1957), 577–582, XLIX. (Russian summary)

*Let u be a vector and $u_{ij} = \partial^{i+j}u/\partial x^i \partial y^j$. By the methods used in the paper reviewed above, the author obtains existence and uniqueness theorems for solutions of the partial differential equation $u_{mp} = f(x, y, u, \cdots, u_{ij}, \cdots)$, where $0 \leq i+j < m+p$, $0 \leq i \leq m$, $0 \leq j \leq p$, subject to conditions of the form: $u_{mj}(x, y) = g_j(x, u(x, y), \cdots, u_{ik}(x, y), \cdots)$ on an arc $y = \gamma_j(x)$, where $1 \leq j \leq p$, $i+k < m+p$ and $0 \leq i < m$; and $u_{ip}(x, y) = h_i(y, u(x, y), \cdots, u_{kj}(x, y), \cdots)$ on an arc $x = \delta_i(y)$, where $1 \leq i \leq m$, $k+j < m+p$ and $0 \leq j < p$. In these conditions, $y = \gamma_j(x)$ and $x = \delta_i(y)$ are given arcs and $g_j(x, u, u_{ik}, \cdots)$, $h_i(y, u, \cdots, u_{kj}, \cdots)$ are given functions of the independent variables $(x, u, \cdots, u_{ik}, \cdots)$, $(y, u, \cdots, u_{kj}, \cdots)$, respectively.   P. Hartman (Los Angeles, Calif.).

On a Problem Concerning a System of Hyperbolic
Differential Equations of Arbitrary Order in
Two Independant Variables.

Szmydt, Z. Sur l'existence de solutions de certains problèmes aux limites relatifs à un système d'équations différentielles hyperboliques. Bull. Acad. Polon. Sci. Sér. Sci. Math. Astr. Phys. 6 (1958), 31–36.

Let $y=\gamma(x)$ and $x=\lambda(y)$ be two continuous curves in a rectangle D of the plane. Let U, P, Q denote n-vectors and suppose that $F(x, y, U, P, Q)$, $G(x, U, Q)$, and $H(y, U, P)$ are continuous functions for (x, y) in D and U, P, Q arbitrary. It is desired to find a solution for the system, denoted by

$$U_{xy}=F(x, y, U, U_x, U_y),$$

and satisfying the conditions

$$U(x_0, y_0)=U_0, \text{ a constant vector;}$$
$$U_x=G(x, U, U_y) \text{ on } y=\gamma(x);$$
$$U_y=H(y, U, U_x) \text{ on } x=\lambda(y).$$

It is assumed that $F, G,$ and H do not grow faster than a linear function in U, P, Q and satisfy Lipschitz conditions in P, Q with suitably small coefficients. The proof uses J. Schauder's theorem on fixed points [Studia Math. 2 (1930), 171–180].   *R. G. Bartle* (Urbana, Ill.)

WOLSKA-BOCHENEK, J., doc. dr.; SZMYDT, Z. doc. dr.

Witold Pogorzelski's 45th anniversary of scientific work.
Rocz wiad matem 5:29-37 '61.

SZMYDT, Z. (Krakow)

On a certain boundary problem for Laplace equation. Annales pol math
11 no.1:27-48 '61.

(Integral equations)

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AUTHOR: Szmydt, Z. (Kraków)

TITLE: Non-linear perturbations which do not augment the
            maximum increase of integrals

SOURCE: Polska Akademia Nauk. Instytut Matematyczny. Annales
            polonici mathematici, v. 11, no. 2, 1961, 143 – 148

TEXT: The author considers a system of linear differential equa-
tions written in vectorial form

$$\frac{dx}{dt} = A(t) \, x,$$ (1)

and a perturbed system

$$\frac{dy}{dt} = A(t)y + f(t, \, y),$$ (2)

where A is a square matrix, whose elements a_{ij} are functions of t,
continuous for $t \geqslant 0$. The problem Q to be considered is: If X(t) is

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Non-linear perturbations which do ...   2/508/61/011/002/001/002
D251/D303

the fundamental matrix of (1) does there exist for each integral y(t) of (2) at least one corresponding integral x(t) of (1) such that

$$y(t) = O(//X(t)//)? \tag{3}$$

It is stated that if Q has an affirmative answer, then the increase of any integral of (2) cannot surpass the maximum increase of the integrals of (1) determined by that of //X(t)// and all the integrals of (2) are bounded, provided that those of (1) are bounded. It is shown that by Theorem 1: If f(t, y) is continuous for $t \geqslant 0$ (y arbitrary), and g(t) is a non-negative summable function ($t \geqslant 0$) such that

$$//f(t, y)// \leqslant g(t)//y// \qquad t \geqslant 0 \tag{5}$$

and

$$\int_0^\infty //X(t)// \; //X^{-1}(t)//g(t)dt < \infty, \tag{6}$$

then Q has an affirmative answer. Theorem 2: If W is the fundamental matrix of

$$dw/dt = B(t)w \tag{9}$$

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Non-linear perturbations which do ...   S/058/61/011/002/001/002
                                           251/503

and $f(t, z)$ is a continuous vectorial function $(t \geq 0$, z arbitrary)
and $h(t)$ is a summable function, non-negative for $t \geq 0$, and if

$$//f(t, z)// \leq h(t)//z// \text{ for } t \geq 0, \quad \int_0^\infty h(t)dt < \infty \qquad (10)$$

and $$f[t, \Lambda(t)y] = h(t)f(t, y) \text{ for } t \geq 0, \qquad (11)$$

then Q has an affirmative answer for (9) and

$$dz/dt = B(t)z + f(t, z). \qquad (12)$$

It is shown that a theorem of R. Bellman follows as a corollary of
Theorem 1. There are 3 references: 1 Soviet-bloc and 2 non-Soviet-
bloc. The references to the English-language publications read as
follows: R. Bellman, On a generalization of a result of Wintner,
Quarterly of Applied Mathematics, 16, 1959, 431-432; L. Cesari,
Asymptotic behavior and stability problems in ordinary differential
equations, Springer-Verlag, 1959.
ASSOCIATION: Instytut matematyczny Polskiej Akademii Nauk (Institu-
          te of Mathematics, Polish Academy of Sciences)
SUBMITTED: October 1, 1959
Card 3/3

Warsaw, Bulletin de l'Académie Polonaise des Sciences. Série des Sciences Mathématiques, Astronomiques, et Physiques, Vol X, No 3, 1962.

1. "A Problem in the Theory of Models," A. Warcovski, of the Institute of Mathematics, Polish Academy of Sciences (Instytut Matematyczny, PAN); English article, pp. 121-126.

2. "Note on a Theorem of Stadeff," R.J. ... of the University of Birmingham, England; English article, pp. 127-130.

3. "On a Certain General Boundary Value Problem of Elliptic Systems of Linear Differential Equations of the Second Order," B. Laveck, of the University of Warsaw (... Analysis, University Warszawski); Russian article, English summary, pp. 131-138.

4. "Integral Properties of the Logarithmic Potential and its Applications," Z. Semrau, of the Institute of Mathematics, Cracow Branch, Polish Academy of Sciences (Instytut Matematyczny, Oddział Krakow, PAN); French article, pp. 139-144.

5. "Transformation of Parabolic Equations with Certain Applications to Markov Processes," ... Russian article, English summary, pp. 145-152.

6. "Note on Modular Spaces, III," ... and W. Orlicz, of the Institute of Mathematics, University, Poznan (Instytut Matematyczny, University, Poznan); English article, pp. 153-157.

7. "Gravitational Instability of a Self-gravitating Gaseous Cylinder in the Presence of a Magnetic Field Parallel to the Axis of the Cylinder," J.S. ..., Warsaw University Observatory and the Institute of Astronomy, Polish Academy of Sciences (Obserwatorium Astronomiczne, University Warszawski); English article, pp. 159-164.

8. "A Set of Integral Equations for the Photoproduction of Pions on Nucleon Amplitudes, II," G. Białkowski, ... Jurewicz, of the Institute of Theoretical Physics, Warsaw University; ...

- 1/2 -

SZMYDT, Z.

Integral properties of the logarithmic potential and its
applications. Bul Ac Pol mat 10 no.3:139-144 '62.

1. Instytut Matematyczny, Polska Akademia Nauk, Krakow. Presented
by T.Wazewski.

SZMYDT, Z.

On some properties of the logarithmic potential. Annales pol math
12 no.2:115-137 '62.

1. Instytut Matematyczny, Polska Akademia Nauk, Warszawa.

S/044/63/000/002/008/050
A060/A126

AUTHOR: Szmydt, Z.

TITLE: On the approximation by harmonic polynomials on the boundary of a
plane domain

PERIODICAL: Referativnyy zhurnal, Matematika, no. 2, 1963, 22, abstract 2E98
(Ann. polon. math., 1962, v. 11, no. 3, 283 - 305; French)

TEXT: The author investigates the completeness of harmonic polynomials in
the Banach space of functions defined on the boundary of a plane domain. In or-
der to formulate the results obtained we shall introduce the following defini-
tions. By Σ we denote a closed curve in the plane of the complex variable z ($z =$
$= x + iy$), having the parametric representation $z = z(s)$, $0 \leqslant s < L$, where z
(s) is a periodic function of period L; $|z'(s)| = 1$ for $0 \leqslant s \leqslant L$; $z(s_1) =$
$= z(s_2)$, $0 \leqslant s_1 < s_2 \leqslant L$, if and only if $s_1 = 0$ and $s_2 = L$. One says that
the curve Σ belongs to the class C^m (m is a non-negative integer) if the func-
tion $z(s)$ belongs to the class C^m. One says that the function $f(z)$ belongs
to the class $C^m(\Sigma)$ of the function $f[z(s)] \in C^m$. By $D_m(\Sigma)$ we shall

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denote the Banach space for functions $u(z) \in C^m(\Sigma)$ with the norm

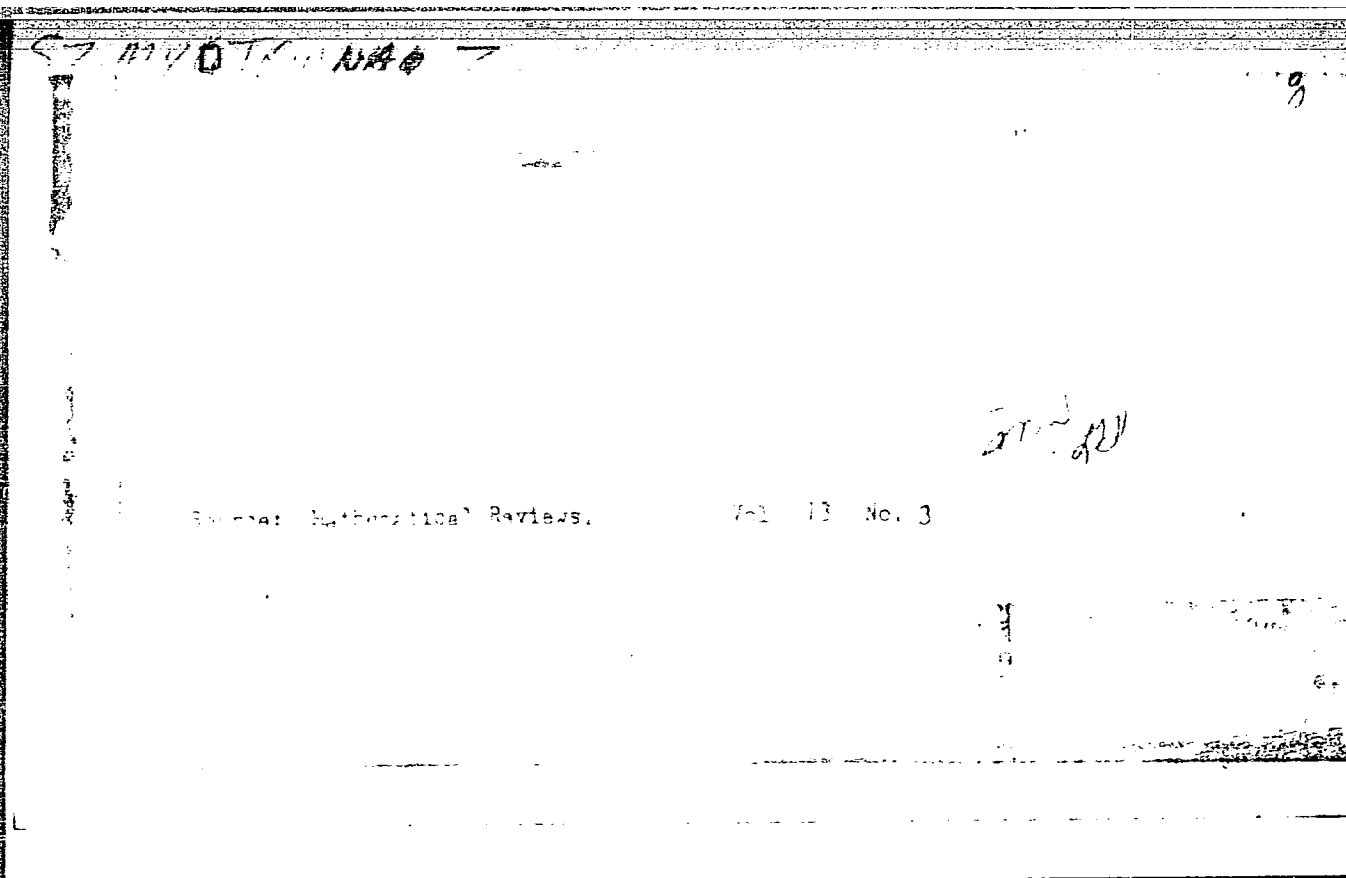$$\| u \| = \sum_{k=0}^{m} \max_{0 \leqslant s \leqslant L} \frac{d^k u[z(s)]}{ds^k} .$$

The following theorems are proven: Theorem 1. If a closed curve Σ belongs to the class C^{m+2}, then the system of harmonic polynomials is complete in the space $D_m(\Sigma)$. Theorem 2. If a closed curve Σ belongs to the class C^{m+2}, then the system of derivatives along the inner normal to the curve Σ of the harmonic polynomials is not complete in the space $D_m(\Sigma)$. It is also demonstrated that for $m = 0$ the conditions of Theorems 1 and 2 may be replaced by a more general conditions. Namely, the theorems remain valid if one assumes that the closed curve belongs to the class C^1_1, i.e., when $|z'(s_1) - z'(s_2)| \leqslant N |s_1 - s_2|$, $0 \leqslant s_1$, $s_2 \leqslant L$, where N is an absolute constant.

Zh.N. Keshishyan

[Abstracter's note: Completd translation]

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SZMYDTOWNA, Z.

Source: Authoritica' Reviews.   Vol 13 No. 3

CZMYDTOWNA, Z

U.

SINGH, D.

"Radio Centers of the All-Union Voluntary Society for the Promotion of the Army, Air Force, and Navy", p. C, (RADIO WATCH, Vol. 5, No. 5, August 1953, Warsaw, Poland)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 4, No. 3, March 1955, Uncl.

GARNUSZEWSKI, Zbigniew; SZMYGIN, Joanna

Intradermal trypan blue test as a criterion in the evaluation
of the stabilization of tuberculosis. Gruzlica 30 no.10:927-
932 '62.

1. Z Kliniki Ftizjatrycznej PAM w Szczecinie Kierownik: prof.
dr med. Z. Garnuszewski.
          (TUBERCULOSIS, PULMONARY)   (TRYPAN BLUE)
               (SKIN TESTS)   (PROGNOSIS)

GRZYBOWSKI, Stanislaw, mgr inz.; SZMYT, Jerzy, mgr inz.

Computation of earth currents in medium voltage networks.
Energetyka Pol 18 no. 8:238-243 Ag '64.

1. Technical University, Poznan (for Grzybowski). 2. Electric
Power Station, Gorzow Wlkp. (for Szmyt).

SZMYT, J.

Color vision, in the light of the physiologic theory of Ragnar Gran-
it. Polski tygod. lek. 5 no.14:542-546 3 Apr 1950   (CIML 20:1)

SZMYT, J.

Glare. Polski tygod. lek. 6 nos.23-24:767-768 11 June 1951.
(CIML 21:1)

1. Theory of vision.

SZMYT, J.

Color vision in glaucoma. Przegl. lek., Krakow 7 no. 9: 338-348 1951.   (CIML 21:3)

1. Warsaw.

SZMYT, Jacek (Warszawa, Bagatela 15/77)

Physiological value of luminescent light. Polski tygod. lek. 9
no.19:598-602 10 May 54.
(ILLUMINATION,
luminescent light, physiol. factors)

SZMYT, Jacek

Radiography of the lacrimal tract in pathological conditions; radiographic picture in external dacryocystorhinostomy. Polski przegl. radiol. 20 no.5:269-273 Sept-Oct 56.

1. Z Zakladu Okulistyki Institutu Doskonalenia i Specjalizacji Kadr Lekarskich Kierownik: prof. dr. med. W. Arkin.
        (LACRIMAL APPARATUS, surgery,
            dacryocystorhinostomy, postop. x-ray (Pol))

SZMYT, Jacek

Radiography of normal lacrimal apparatus. Klin. oczna 27 no.1:
37-42 1957.

1. Z Zakladu Ocznego I.D.S.K.L. w Warszawie Kierownik: prof.
dr. W. Arkin, i z Zakladu Radiologii A.M. w Gdansku Kierownik:
prof. dr. W. Grabowski. Warszawa, Bagatela 15, m. 77.
     (LACRIMAL APPARATUS, radiography
           (Pol))

SZMYT, Jacek   (Warszawa, ul. Bagatela 15 m. 77)

Lacrimation tests. Klin.oczna 28 no.2:195-201 1958.

1. Z Zakladu Okulistyki I.D.S.K.L. w Warszawie. Kierownik: prof. dr
med. W. Arkin.
          (LACRIMAL APPARATUS, physiology
                lacrimation tests, diag. & clin. value (Pol))

SZMYT, Jacek

Physiopathological hydrodynamics of lacrimation. Klin.oczna
29 no.3:291-296 '59.

1. Z Polikliniki Centralnego Szpitala Klinicznego M. S. W.
w Warszawie.
(LACRIMAL APPARATUS physiol)

SZMYT, Jacek, doc.dr.

    Usefulness and aesthetics of eyeglasses. Problemy 18 no.8:569-575 '62.

Szmyt, K

POLAND / Chemical Technology. Chemical Products and   H
           Their Application. Synthetic and Natural
           Medicinal Substances. Galenical Preparations
           and Medicinal Forms.

Abs Jour: Ref Zhur-Khimiya, No 9, 1959, 32465.

Author : Terpilowski, J., Szmyt, K.
Inst   : Not given.
Title   : An Application of Ionic Substitutes in the
          Analysis of Pharmaceutical Preparations.

Orig Pub: Farmac. polska, 1958, 14, No 13, 198-200.

Abstract: A review. Bibliography of 70 titles.

        Card 1/1

COUNTRY   : Poland
CATEGORY   :

ABS. JOUR. : RZKhim., No. 16   1959, No.   58091

AUTHOR   : Terpilowski, J. and Szmyt, K.
INST.   : Not given
TITLE   : The Chelatometric Determination of Magnesium in
             Certain Prescriptions

ORIG. PUB. : Acta Polon Pharmac, 15, No 4, 285-292 (1958)

ABSTRACT   : A simple, rapid, and accurate chelatometric
             method has been developed for the determination
             of Mg in a number of widely used subscriptions.
             Optimum conditions for the dissolution of various
             mixtures have been determined together with the
             most effecient ways of removing components which
             interfere with the determination; the latter
             purpose was achieved by the use of a column
             packed with Amberlite IRA-400 anion exchange
             resin and by the use of the hydrolysis reaction
             (in the case Bi salts).
                                        From authors' summary

CARD: 1/1

SZMYT, U.; WRZESINSKA, A.

The effect of activator concentration on the depth of the electron
traps in ZnS. Bul Ac Pol mat 8 no.11/12:811-816 '60.

1. Instytut Fizyki Doswiadczalnej, Universytet im. M. Kopernika,
Forum. Presented by A. Jablonski.

(Zinc alloys)   (Sulphur)

SZMYTOWNA, Maria, prof., dr.

Scientific and educational activities of Dr. Franciszek
Adamanis. (In memoriam) Acta pol. pharm. 20 no.2:101-108 '63.

1. Kierownik Katedry Chemii Nieorganicznej i Analitycznej
Wydzialu Farmaceutycznego Akademii Medycznej w Poznaniu.
        (OBITUARIES)   (BIBLIOGRAPHY)   (PHARMACY)

KASZAP, Andras; SZNAGYIK, Laszlo

Photometric color investigations in the Jurassic profile of
Labatlan. Foldt kozl 90 no.1:114-119 Ja/Mr '60.   (EEAI 9:8)
          (Hungary--Geology)   (Photometry)

ACC NR: AP6031249   SOURCE CODE: PO/0055/66/007/003/0299/0309

AUTHOR: Aleksandrowicz, Julian (Professor, Director, Doctor); Naskalski, Jerzy; Sznajd, Jan; Urbanczyk, Jan

ORG: Department of Biochemistry, Third Clinic of Internal Medicine, Medical Academy, Cracow

TITLE: Disorders of ribonuclease activity in chronic granulocytic leukemia

TOPIC TAGS: rnase activity, leukemia, disease control, serology, enzymology, enzyme, activity, blood disease, ribonuclease

ABSTRACT: Studies have been undertaken to elucidate the increased RNase activity in the urine of chronic granulocytic leukemia (cgl) patients. Included in the studies are 1) preliminary characterization of the factors responsible for serum and urinary nucleolytic activity; 2) search for interdependence between urinary and serum RNase activity and leukocytosis; 3) correlation between urinary and serum activity; 4) attempt to estimate the importance of the kidneys in disorders of RNase activity in leukemias on the bases of renal-function studies. Thirty-five clinical patients with cgl participated in the experiment; for

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ACC NR: AP6031249

comparison, there were 20 patients with lymphatic leukemia (11) and 20 patients with myeloblastic leukemia (ml). The control consisted of 150 healthy people. The serum and urinary activity was determined by the orcinal method, and later by the spectro-photometric method. AcPase activity was determined by the Bessey method; creatine and serum nonprotein nitrogen were assayed by the methods of Jeffrey and Rappaport, respectively. The results were 1) Agreement of nucleolytic activity of serum and urine with well-known properties of ribonuclease was shown. 2) Serum RNase activity was markedly elevated both in the serum and in the urine of the patients. 3) AcPase activity was comparable in both groups. 4) There was a marked correlation between levels of serum and urinary RNase activity in the patients. In cgl, less pronounced correlation indicated disorders in the excretion of RNase. 5) RNase clearance values in cgl were shown to be neither dependent upon serum RNase activity nor related to the levels of leukocytosis. 6) A distinct correlation between leukocytes and RNase activity, described by the following formula, was shown: where Y is the serum RNase activity in μg/ml and X is cgl leukocyte count in thousands. Maximal RNase activity occurred in range of low leukocytosis (around 3000) and highest leukocytosis (100,—300,000). Lowest values of RNase occurred

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ACC NR: AP6031249

in range of leukocytosis from 10,000—300,000. Experiments indicate that there is a state of equilibrium between RNase activity and level of leukocytosis in cgl. As a result, high levels of leukocytosis are accompanied by high RNase activity. The occasional drop in the leukocyte level is explained by a negative feedback relationship. This hypothesis supports the view that leukocytes are a source of serum RNase. The authors express their indebtedness to Miss Olga Sobejko for technical assistance. [WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 013/

Card. 3/3